

REPORT ON IDENTIFICATION OF VMEs AND ASSESMENT OF IMPACT BY BOTTOM FISHING ACTIVITES ON VMEs AND MARINE SPECIES

1. Name of participated state

Russian Federation

2. Name of the fishery

A. Bottom trawl fishery

B. Bottom gillnet fishery

C. Bottom longline fishery

D. Pot fishery

3. Status of fishery

A. Bottom trawl fishery

Existing fishery. The bottom trawl fishery in the area considered began in the late 1960s, following a discovery of highly abundant pelagic armorhead stock over seamounts in open waters of the northwestern Pacific Ocean by the USSR Fishery vessel "Astronom". In 1968, USSR trawlers began commercial harvest of the pelagic armorhead stock over Emperor Seamounts and Hawaiian Ridge.

B. Bottom gillnet fishery

Existing fishery.

C. Bottom longline fishery

Existing fishery. From 2000 to 2008, from 1 to 6 Russian long line vessels annually fished in the SE-NHR region.

D. Pot fishery

Existing fishery. From 2002 to 2003, from 1 to 2 Russian vessels commercially harvested crabs in the SE-NHR region.

4. Target species

A. Bottom trawl fishery

Splendid alfonsin (*Beryx splendens*) and North Pacific Armorhead (*Pseudopentaceros wheeleri*)

B. Bottom gillnet fishery

Oreo (*Allocyttus verrucosus*), Mirror dory (*Zenopsis nebulosa*) and Splendid alfonsin (*Beryx splendens*).

C. Bottom longline fishery

Rockfishes (primarily, *Helicolenus* spp.), skilfish (*Erilepis zonifer*), Splendid alfonsin (*Beryx splendens*), North Pacific Armorhead (*Pseudopentaceros wheeleri*) and grenadiers (*Coryphaenoides* spp.)

D. Pot fishery

Tanner crab (*Chionoecetes tanneri*), red crab (*Geryon* spp.) and snow crab (*Paralomis* spp.).

5. Bycatch species

A. Bottom trawl fishery

Mirror dory (*Zenopsis nebulosa*), butterfish (*Hyperogliphe japonica*), rockfishes (primarily *Helicolenus* spp.), broad alfonsin (*Beryx decadactylus*), Grenadiers (*Coryphaenoides* spp.), lanternfishes (family *Myctophyidae*) and sharks (different species).

B. Bottom gillnet fishery

No credible data.

C. Bottom longline fishery

According to interview with fishing captain, escolar (*Lepidocybium flavobrunneum*), wahoo (*Acanthocybium solandri*), dorado (*Coryphaena hippurus*), grenadiers (*Coryphaenoides* spp.) and codling (primarily *Physiculus* spp.) are caught as bycatch species. However, a list of detailed bycatch species by longline fisheries is not unknown.

D. Pot fishery

Unidentified spider crabs.

6. Recent level of fishing effort

(1) Number of fishing vessels

A. Bottom trawl fishery

The annual number of Russian fishing vessels engaged in this fishery from 2000 till 2008 is presented in Appendix A.

B. Bottom gillnet fishery

See Appendix A.

C. Bottom longline fishery

See Appendix A.

D. Pot fishery

See Appendix A.

(2) Tonnage of each fishing vessels

A. Bottom trawl fishery

List of fishing Russian vessels with their gross tonnages is presented in Appendix A.

B. Bottom gillnet fishery

See Appendix A.

C. Bottom longline fishery

See Appendix A.

D. Pot fishery

See Appendix A.

(3) Number of fishing days or days on fishing grounds

A. Bottom trawl fishery

A compilation of fishing days by year and type of gear are listed in the Appendix B.

B. Bottom gillnet fishery

See Appendix B.

C. Bottom longline fishery

See Appendix B.

D. Pot fishery

See Appendix B.

(4) Fishing effort

A. Bottom trawl fishery

No credible data.

B. Bottom gillnet fishery

No credible data.

C. Bottom longline fishery

No credible data.

D. Pot fishery

No credible data.

(5) Total catch by species

A. Bottom trawl fishery

Annual catch (mt) is listed Appendix C.

B. Bottom gillnet fishery

See Appendix C.

C. Bottom longline fishery

See Appendix C.

D. Pot fishery

See Appendix C.

(6) Names of seamounts fished or to be fished

A. Bottom trawl fishery

Since 2001 Russia trawlers has been commercially fishing on Youmei, Nintoku, Jingu, Ojin, Koko (probably include northern bank), Milwaukee, Colahan and C-H.

The information is specified in Appendix D.

B. Bottom gillnet fishery

No credible data. In 2001 Russian gillnets vessels have been commercially fishing only on Jingu.

C. Bottom longline fishery

Since 2000 Russian longline vessels have been commercially fishing on Suiko, Showa, Youmei, Nintoku, Jingu, Ojin, Koko, Milwaukee and C-H. See Appendix D.

D. Pot fishery

In 2002-2003 three Russian vessels were engaged in bottom pot fishery on Showa, Nintoku and Koko. See Appendix D.

7. Fishing period

A. Bottom trawl fishery

All the year round

B. Bottom gillnet fishery

All the year round

C. Bottom longline fishery

All the year round

D. Pot fishery

All the year round

8. Analysis of status of fishery resources

A. Bottom trawl fishery

Japan completed recent assessment for splendid alfonsin for SWG2/J-5_Ver.1115; no stock assessment has been made for North Pacific armorhead.

B. Bottom gillnet fishery

Japan completed recent assessment for splendid alfonsin for SWG2/J-5_Ver.1115; no stock assessment has been made for North Pacific armorhead.

No other information is available for the development of this seamount fishery.

C. Bottom longline fishery

Only short-term catch statistics is available for assessment of fishery impact on target species, except for Splendid alfonsin and North Pacific armorhead. Since 2000 CPUE (catch per fishing day) for target species showed fluctuations and increased by more than one half in 2008. According to interviews with fishing captains the size composition of armorhead during the same period has not changed notably. See Appendix E.

D. Pot fishery

Only short-term catch statistics is available for assessment of fishery impact. In 2002 and 2003 CPUE (catch per fishing day) was relatively stable, of 700 and 850 kg, respectively. No other information is available for the development of this seamount fishery.

9. Analysis of status of bycatch species resources

A. Bottom trawl fishery

The data is available from Appendix C.

B. Bottom gillnet fishery

No credible data.

C. Bottom longline fishery

See Appendix C.

D. Pot fishery

No credible data.

10. Analysis of existence of VMEs in the fishing ground

A. Bottom trawl fishery

The existence of VMEs during bottom fishery activities has been established using bathymetric database, ROV observations, drop camera observations, and incidental captures of corals. The following four orders of corals (Alcyonacea, Gorgonacea, Antipatharia and Scleractinia) were identified as indicators of VMEs in the SE-NHR region (SWG4/Rep.).

B. Bottom gillnet fishery

See section 10(A).

C. Bottom longline fishery

During bottom longline fishery, no captures of corals (Alcyonacea, Gorgonacea, Antipatharia and Scleractinia) have been registered, which may indicate that, either fishery operations have been conducted in areas where VMEs were absent, or this fishery has no significant impact on the existing VMEs.

D. Pot fishery

During pot fishery, no captures of corals (Alcyonacea, Gorgonacea, Antipatharia and Scleractinia) have been registered, which may indicate that, either fishery operations have been conducted in areas where VMEs were absent, or this fishery has no significant impact on the existing VMEs.

11. Impact assessment of fishing activities on VMEs and marine species

A. Bottom trawl fishery

The assessment of SAI on VMEs during bottom fishery activities has been established based on the approach described in section 10 (A).

B. Bottom gillnet fishery

See section 11(A).

C. Bottom longline fishery

See section 10(C).

D. Pot fishery

See section 10(D).

12. Other Points to be Addressed

A. Bottom trawl fishery

No other points to be addressed so far.

B. Bottom gillnet fishery

See section 12(A).

C. Bottom longline fishery

See section 12(A).

D. Pot fishery

See section 12(A).

13. Conclusion

A. Bottom trawl fishery

Additional measures to reduce impact on VMEs and marine species

1) Adoption of zonal closures should be made in areas where *Corallium* spp. have been encountered. The zonal closure is to include the part of southeastern slope of Koko seamount deeper than 400 m between 34° 57' N and 34° 50' N latitudes, where coral captures had been reported and where *Corallium* spp. have been observed by Japanese ROVs and drop camera surveys 2006 and 2008. Recognizing the importance of precautionary approach, bottom trawl vessels will conduct fishery operations in southeastern Koko south of 35°N within the trawl corridor shown in the Figure. Appendix F.

2) Adoption of reduction of fishery effort should be accepted for those fish populations that had been and are subjected to bottom fishery impacts. Adopt the 24% reduction in fishery mortality for splendid alfonsin as indicated in the most recent study on stock assessment of Emperor seamount populations of this fish species (Nishimura and Yatsu 2008, ver. 1115).

3) To achieve a previous point temporary closure of fishery for target species during November-December in order to reduce fishery mortality on all fished seamounts, except for exploratory and research activity in the area considered.

4) 100 percent-coverage observer will be deployed on all Russian bottom trawl vessels.

5) If a vessel incidentally catches cold-water corals (the Alcyonacea, Gorgonacea, Antipatharia or Scleractinia), the vessel will follow all procedures determined by the Inter-Governmental Meeting.

B. Bottom gillnet fishery

Inadequate catch statistics for this fishery does not make it possible to accurately conduct stock assessment, evaluate the sustainability of the fishery, and assess SAI on VMEs.

1) Adoption of zonal closures should be made in areas where *Corallium* spp. have been encountered. The zonal closure is to include the part of southeastern slope of Koko seamount deeper than 400 m between 34° 57' N and 34° 50' N latitudes.

2) Fishery will be stopped during November-December every year on all seamounts in order to achieve a 24% reduction of fishing mortality of marine species.

3) 100 percent-coverage observer will be deployed on all Russian bottom longline vessels.

4) If a vessel incidentally catches cold-water corals (the Alcyonacea, Gorgonacea, Antipatharia or Scleractinia), the vessel will follow all procedures determined by the Inter-Governmental Meeting.

5) Same as in national measures of management gillnet rope will be set at 100 cm above the seafloor.

C. Bottom longline fishery

1) Since, no SAI of this fishery on VMEs has been observed, this fishery will be continued on all fished seamounts; however, this fishery will be stopped during November-December every year on all seamounts in order to achieve a 24% reduction of fishing mortality of marine species.

2) 100 percent-coverage observer will be deployed on all Russian bottom longline vessels.

3) If a vessel incidentally catches cold-water corals (the Alcyonacea, Gorgonacea, Antipatharia or Scleractinia), the vessel will follow all procedures determined by the Inter-Governmental Meeting.

D. Pot fishery

1) Since, no SAI of this fishery on VMEs has been observed, this fishery will be continued on all fished seamounts.

2) 100 percent-coverage observer will be deployed on all Russian pot vessels.

3) If a vessel incidentally catches cold-water corals (the Alcyonacea, Gorgonacea, Antipatharia or Scleractinia), the vessel will follow all procedures determined by the Inter-Governmental Meeting.